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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/594,216	06/14/2000	Randall Wayne Frei	10160	7839
21924	7590	12/29/2005		
ARRIS INTERNATIONAL, INC 3871 LAKEFIELD DRIVE SUWANEE, GA 30024				
			EXAMINER TRAN, PHUC H	
			ART UNIT 2668	PAPER NUMBER

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/594,216	<b>Applicant(s)</b> FREI, RANDALL WAYNE	
	<b>Examiner</b> PHUC H. TRAN	<b>Art Unit</b> 2668	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.  
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-10 and 12-29 is/are rejected.  
 7) ☒ Claim(s) 11 is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1,4-6,8-9,12-15,18-19,21-24, and 27-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Lamberton et al. (U.S. Patent No. 6754220 B1).

- With respect to claims 1, 12-13, & 21-22, Lamberton teaches a system for enabling layer-3 communication within a sub-network for those members of the sub-network without layer-2 communication (e.g. Fig. 3), the system comprising:

a sending device, a receiving device (hosts in Fig. 3), a forwarding agent (routers in Fig. 3), a first network device (mediator in Fig. 3) comprising a media access control address of a forwarding agent (col. 5, lines 33-35), the first network device interprets an address resolution protocol request from the sending device (460 in Fig. 4), and sending an address resolution

Art Unit: 2668

protocol reply comprising the media access control address of the forwarding agent to the sending device (465 in Fig. 4).

- With respect to claim 4, Lamberton teaches wherein the receiving device comprises a network device comprising an Internet protocol address and a media access control address (e.g. IP and MAC in Fig. 4).

- With respect to claims 5, 15, & 24, Lamberton discloses wherein the receiving device comprises a computer (col. 1, line 17).

- With respect to claims 6, 8, 14, 18, 23 & 27, Lamberton teaches wherein the first network device comprises a network device adapted to communicate through a plurality of network communication layers including layer-3 (e.g. the IP traffic and MAC).

- With respect to claims 9, 19, & 28, Lamberton discloses wherein the forwarding agent comprises a router (routers in Fig. 3).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 17, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamberton et al. (U.S. Patent No. 6754220 B1) in view of Bhaskaran (U.S. Patent No. 5963540).

- With respect to claims 7, 17, & 26, Lamberton discloses all the aspect of the claimed invention as set forth above but fails to teach wherein the first network device comprises a

switch. Bhaskaran teaches the switch between routers, source and destination (in Fig. 3). The switch of Bhaskaran can be implement into Lamberton at the mediator for switching between routers and hosts. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to utilize the switch for switching in communication.

5. Claims 2-3, 10, 16, 20, 25 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamberton et al. (U.S. Patent No. 6754220 B1) in view of Short et al. (U.S. Patent No. 6130892).

- With respect to claims 2-3, 16, & 25, Lamberton discloses all the aspect of the claimed invention as set forth above but fails to teach wherein the first network device comprises a proxy-proxy address resolution protocol function adapted to interpret the address resolution protocol request. Short teaches the proxy ARP (col. 11, line 56). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement a proxy ARP for security and privacy in communication.

- With respect to claims 10, 20, & 29, Lamberton discloses all the aspect of the claimed invention as set forth above but fails to teach wherein the forwarding agent comprises a firewall. Short teaches firewall (Fig. 7E) for protection. The firewall can be utilized at the router of Lamberton for protection the network. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to utilized the firewall for filter packet and protection network.

***Response to Arguments***

6. Applicant's arguments with respect to claims 1-10, and 12-29 have been considered but are moot in view of the new ground(s) of rejection.

***Allowable Subject Matter***

7. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

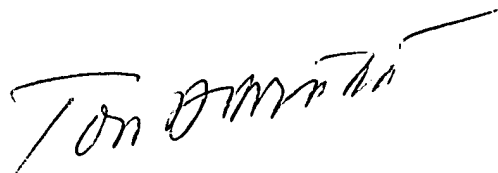
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H TRAN whose telephone number is (703) 308-7471. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuc Tran  
Assistant Examiner  
Art Unit 2664

P.t  
12/24/05



DANG TON  
PRIMARY EXAMINER